

INCH-POUND

MIL-PRF-28876/1E
4 October 2004
SUPERSEDING
MIL-C-28876/1D
9 July 1992

PERFORMANCE SPECIFICATION SHEET

CONNECTORS, FIBER OPTIC, CIRCULAR, RECEPTACLE STYLE,
MULTIPLE REMOVABLE TERMINI, SCREW THREADS,
WALL MOUNTING, WITHOUT BACKSHELL, ENVIRONMENT RESISTING

This specification is approved for use by all Departments
and Agencies of the Department of Defense.

The requirements for acquiring fiber optic connectors described
herein shall consist of this specification sheet and MIL-PRF-28876.

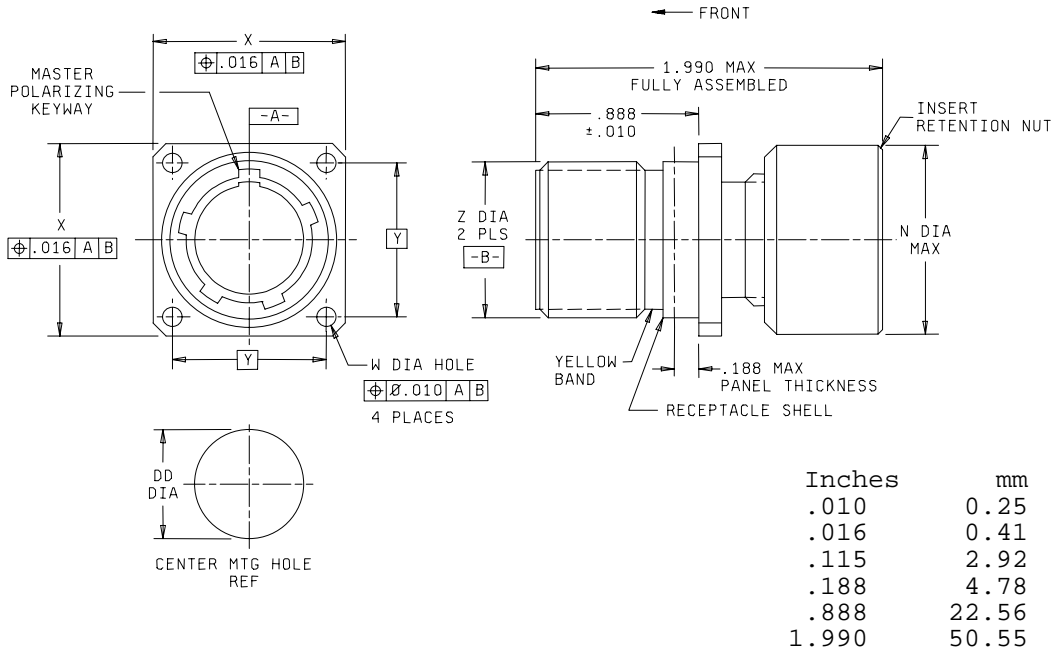


FIGURE 1. Wall mounting receptacle connector.

MIL-PRF-28876/1E

| Shell size | N dia max | W dia | X | Y | Z dia max | DD dia max $\pm .005$ | Insert figure <u>5</u> / | Color band EIA-359 |
|------------|------------------|----------------|------------------|------------------|------------------|-----------------------|--------------------------|--------------------|
| 11 | .960 (24.38) | .130 (3.30) | 1.043 (26.49) | .750 (19.05) | .750 (19.05) | .812 (20.62) | B-1 | Yellow |
| | | .115 (2.92) | 1.001 (25.43) | | | | | |
| 13 | 1.085 (27.56) | .130 (3.30) | 1.158 (29.41) | .843 (21.41) | .875 (22.22) | .937 (23.80) | B-2 | Yellow |
| | | .115 (2.92) | 1.116 (28.35) | | | | | |
| 15 | 1.255 (31.88) | .130 (3.30) | 1.278 (32.46) | .968 (24.59) | 1.062 (26.97) | 1.124 (28.55) | B-3 or B-4 | Yellow |
| | | .115 (2.92) | 1.236 (31.39) | | | | | |
| 23 | 1.695 (43.05) | .130 (3.30) | 1.738 (44.14) | 1.281 (32.54) | 1.500 (38.10) | 1.562 (39.68) | B-5 or B-6 | Yellow |
| | | .115 (2.92) | 1.698 (43.13) | | | | | |

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Dimensions apply to plated/finished part.
4. Metric equivalents (mm) are in parentheses.
5. For insert arrangement, see the indicated figure in appendix B of MIL-PRF-28876.
6. Connector insert retention nut internal configuration not shown. The insert retention nut shall be in accordance with figure A-8 of MIL-PRF-28876.

FIGURE 1. Wall mounting receptacle connector - Continued.

REQUIREMENTS:

Dimensions and keying configurations: See figure 1 and MIL-PRF-28876, appendix A, figure A-2, and figure A-6.

Weight (without termini):

| <u>Shell size</u> | <u>Weight (ounces, (gram)), maximum</u> |
|-------------------|---|
| 11 | 2.0 ounces (56.7g) |
| 13 | 2.5 ounces (70.875g) |
| 15 | 3.0 ounces (85.05g) |
| 23 | 4.3 ounces (121.905g) |

Fiber optic cable:

Cable diameter: .094 inch (2.38 mm) maximum.

Protective caps: Each connector shall be supplied with protective caps over the front and rear portions of the connector.

Insert arrangement: See appendix B of MIL-PRF-28876 for desired shell size.

Termini: Style P (pin) or S (socket). See MIL-PRF-29504/1, MIL-PRF-29504/2, MIL-PRF-29504/12, MIL-PRF-29504/13, MIL-PRF-29504/14, and MIL-PRF-29504/15 (For dummy terminus, see MIL-PRF-29504/3).

Insert retention nut: Unless otherwise specified in the PIN, supplied with the connector.

Light duty backshell: Supplied in lieu of an insert retention nut and sleeve when specified in the Part or Identifying Number (PIN). Light duty backshell shall be in accordance with MIL-PRF-28876/30.

EMI retention nut: Supplied in lieu of an insert retention nut when specified in the PIN. EMI retention nut shall be in accordance with MIL-PRF-28876/31.

Cleaning procedures: Each shipment of connectors shall include recommended cleaning procedures. The following wording or equivalent is recommended: "To clean, use lint free wipe dampened with alcohol and blow dry with air".

Shell polarization: 1 through 6 keyway positions. See MIL-PRF-28876 appendix A, figure A-3.

MIL-PRF-28876/1E

Marking:

PIN: Marked on flange of receptacle (see table I).

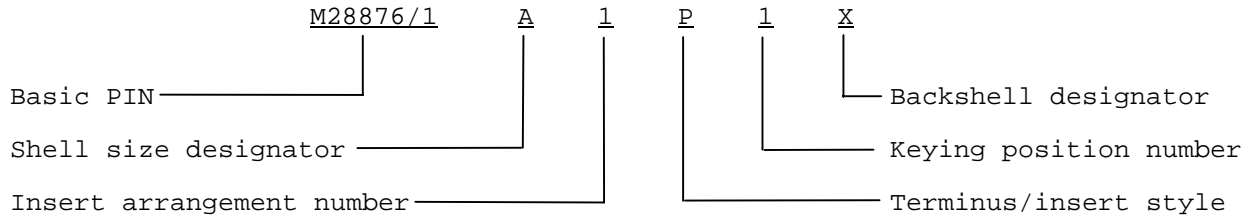


TABLE I. PIN designators.

| Shell size | Shell size designator | Insert arrangement number | Terminus/insert style | Key position | Backshell designator |
|------------|-----------------------|---------------------------|-----------------------|---------------------|----------------------|
| 11 | A | 1 | P or S | 1, 2, 3, 4, 5, or 6 | N, L, E, or blank |
| 13 | B | 1 | P or S | 1, 2, 3, 4, 5, or 6 | N, L, E, or blank |
| 15 | C | 1 or 2 | P or S | 1, 2, 3, 4, 5, or 6 | N, L, E, or blank |
| 23 | F | 1 or 2 | P or S | 1, 2, 3, 4, 5, or 6 | N, L, E, or blank |

TABLE II. Backshell designators.

| Backshell designator | Receptacle configured with: |
|----------------------|-----------------------------|
| Blank | Insert retention nut |
| N | No insert retention nut |
| L | Light duty backshell |
| E | EMI backshell |

Mating counterpart: Plug connectors specified in MIL-PRF-28876/6 through MIL-PRF-28876/9.

Installation and removal tools: As specified in NAVSEA drawing 6872813.

For qualified products listing, conformance, and periodic inspections, dummy termini shall be used in all unused cavities.

Patent notice: The Government does not have a royalty-free license under the following patents for the benefit of manufacturers of the item, either for the Government or for use in equipment to be delivered to the Government:

| <u>Patent application no.</u> | <u>Patent expiration date</u> |
|-------------------------------|-------------------------------|
| US (65,032) | 11/17/2004 |

NOTES:

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Referenced documents. In addition to MIL-PRF-28876, this specification sheet references the following documents:

| | | |
|------------------------|------------------|------------------|
| MIL-PRF-28876/6 | MIL-PRF-28876/7 | MIL-PRF-28876/8 |
| MIL-PRF-28876/9 | MIL-PRF-28876/30 | MIL-PRF-28876/31 |
| MIL-PRF-29504/1 | MIL-PRF-29504/2 | MIL-PRF-29504/3 |
| MIL-PRF-29504/12 | MIL-PRF-29504/13 | MIL-PRF-29504/14 |
| MIL-PRF-29504/15 | | |
| NAVSEA drawing 6872813 | | |
| EIA-359 | | |

CONCLUDING MATERIAL

Custodians:
Army - CR
Navy - SH
Air Force - 11
DLA - CC

Preparing activity:
Navy - SH

Agent:
DLA - CC

Review activities:
Navy - AS
Air Force - 13, 19, 93, 99
DIA - DI
NASA - NA

(Project 6060-0144-01)

NOTE: The activities listed above were interested in this document on the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://www.dodssp.daps.mil/>.